

GRAINGER

Electronic Data Interchange

Transaction Set: 856 Supplier Advance Ship Notice

ANSI X12 Version 4010

This specification covers the requirements for Grainger and our Business Units.

Grainger Industrial Supply
Grainger Parts
Grainger Sourcing (FindMRO)

EDI Advance Ship Notice (856) Transmissions to Grainger

- Grainger has adopted the use of the Electronic Advance Ship Notice (ASN) at all receiving locations to assist in the receiving process.
- ASNs allow Grainger facilities to move product quickly and efficiently through our distribution network.
- The ASN is a required transmission by all suppliers for all shipments.

Supplier must meet the below Requirements

- ASNs are transmitted for **ALL** shipments regardless if shipping to a Grainger receiving location or directly to a Grainger Customer.
- ***One ASN per shipment per final destination, per supplier number.**
 - **Example of this requirement is: A single ASN must support multiple purchase order numbers, for one shipment, to one destination, on the same day**
- *If shipment exceeds one trailer, then one ASN is required per trailer, per final destination, per supplier number.
- ASNs are to be transmitted at time of shipment.
- ASNs should be transmitted real-time **NOT** batch.
- An ASN should **NOT** be transmitted until there is 100% assurance that all items intended to ship have been physically loaded on the carrier's equipment.
- Grainger will pick up ASNs from their EDI mailbox continuously throughout the day.
- Any shipment arriving at a Grainger receiving location without an ASN or with an incomplete ASN can be refused.

Grainger 856 Specification

This specification covers the requirements for Grainger and our Business Units.- Grainger Parts & Grainger Sourcing (FindMRO).

Grainger's Value Added Network (VAN):

Grainger uses the GE Global eXchange Services Network located in Gaithersburg, MD.
GE Global eXchange phone number: 1-800-334-2255.

Grainger Production ISA ID

The list of Grainger Business Unit ISA and GS ID information will be provided prior to moving a partner to production status.

Grainger uses a separate ISA and GS ID for each of the three Grainger Business Units.

Please note – the ISA and GS on the outbound Purchase Order for Grainger Industrial Supply will not be the same ISA and GS transmitted on the inbound ASN by the Supplier. This is a requirement for this Grainger business unit only.

856 Advance Shipment Notice (ASN)

Functional Group ID=**SH**

Heading:

		<u>Seg. ID</u>	<u>Name</u>	<u>Req. Des.</u>	<u>Max.Use</u>	<u>Loop Repeat</u>
		ST	Transaction Set Header	M	1	
		BSN	Beginning Segment for Ship Notice	M	1	

		<u>Seg. ID</u>	<u>Name</u>	<u>Req. Des.</u>	<u>Max.Use</u>	<u>Loop Repeat</u>
Shipment level			LOOP ID - HL			>1
	HL		Hierarchical Level	M	1	
	TD1		Carrier Details (Quantity and Weight)	M	1	
	TD5		Carrier Details (Routing Sequence/Transit Time)	M	1	
	TD3		Carrier Details (Equipment)	M	1	
	REF		Reference Identification	M	2	
	DTM		Date/Time Reference	M	1	
	FOB		F.O.B. Related Instructions	M	1	
			LOOP ID - N1			200
	N1		Name	M	3	3 N1 loops are required to be sent: BY SF ST
	N2		Additional Name Information	O	2	
	N3		Address Information	M	2	Only required for SF & ST loops
	N4		Geographic Location	M	2	Only required for ST & ST loops
Item Level			LOOP ID - HL			>1
	HL		Hierarchical Level	M	1	
	LIN		Item Identification	M	1	
	SN1		Item Detail (Shipment)	M	1	
	PRF		Purchase Order Reference	M	1	
	PID		Product/Item Description	M	1	

Summary:

		<u>Seg. ID</u>	<u>Name</u>	<u>Req. Des.</u>	<u>Max.Use</u>	<u>Loop Repeat</u>
		CTT	Transaction Totals	O	1	
M		SE	Transaction Set Trailer	M	1	

Segment: **ST** Transaction Set Header
Usage: Mandatory
Max Use: 1
Purpose: To indicate the start of a transaction set and to assign a control number

Data Element Summary			
<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
<u>Des.</u>	<u>Element</u>		
ST01	143	Transaction Set Identifier Code	M ID 3/3
		Code uniquely identifying a Transaction Set	
		856 Ship Notice/Manifest	
ST02	329	Transaction Set Control Number	M AN 4/9
		Identifying control number that must be unique within the transaction set	
		functional group assigned by the originator for a transaction set	

Segment: **BSN** Beginning Segment for Ship Notice
Level: Heading
Usage: Mandatory
Max Use: 1
Purpose: To transmit identifying numbers, dates, and other basic data relating to the transaction set

Data Element Summary			
<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
BSN01	353	Transaction Set Purpose Code 00 Original	M ID 2/2
BSN02	396	Unique Shipment Identification Note: The ASN should contain a unique identifying number designated by the supplier in the BSN02 element	M AN 2/30
BSN03	373	Date Date expressed as CCYYMMDD	M DT 8/8
BSN04	337	Time Note: Time expressed as 4, 6, or 8 digits (i.e. hhmm,etc)	M TM 4/8

Segment: **HL** Hierarchical Level
Level: Shipment
Usage: **Mandatory**
Purpose: To identify dependencies among and the content of hierarchically related groups of data segments

Data Element Summary			
<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
<u>Des.</u>	<u>Element</u>		
HL01	628	Hierarchical ID Number	M AN 1/12
		A unique number assigned by the sender to identify a particular data segment in a hierarchical structure	
HL03	735	Hierarchical Level Code	M ID 1/1
		Code defining the characteristic of a level in a hierarchical structure	
		S	Shipment

Segment: **TD1** Carrier Details (Quantity and Weight)
Level: Shipment
Usage: Mandatory
Purpose: To specify the transportation details relative to commodity and weight

Data Element Summary				
<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>	
TD106	187	Weight Qualifier	M	ID 1/1
		G Gross Weight		
TD107	81	Weight	M	R 1/10
		Numeric value of weight		
TD108	355	Unit or Basis for Measurement Code	M	ID 2/2
		LB Pound		

Segment: **TD5** **Carrier Details (Routing Sequence/Transit Time)=**
Level: Shipment
Usage: **Mandatory**
Purpose: To specify the carrier and sequence of routing and provide transit time information

<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
TD502	66	Identification Code Qualifier	O ID 1/1

Note:
If the TD5 02 is populated, then the TD5 03 must be populated
ZZ Carrier code qualifier

TD503	67	Grainger Carrier Codes	O AN 5/5
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Notes:
This element needs to be populated with the carrier code value found on the 850 Purchase order when the TD5 03 element is populated

If the TD5 03 is populated, then the TD5 02 must be populated

Grainger Carrier code values

TD505	387	Grainger Carrier Code Descriptions	M AN 1/35
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Description of the routing or requested routing for shipment, or the originating carrier's identity

Segment: **TD3** Carrier Details (Equipment)
Level: Shipment
Usage: Mandatory
Purpose: To specify transportation details relating to the equipment used by the carrier

Data Element Summary			
<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
TD301	40	Equipment Description Code	M ID 2/2
		TL Trailer	
TD303	207	Equipment Number	M AN 1/10
		Sequencing or serial part of an equipment unit's identifying number (pure numeric form for equipment number is preferred)	
		Notes:	
		➤ If full trailer or LTL shipment, provide trailer number	
		➤ If NOT a full trailer or LTL shipment, provide shippable carton count. (i.e. UPS, Fed Ex, etc.)	

Segment: **REF** **Reference Identification**
Level: Shipment
Usage: **Mandatory**
Purpose: To specify identifying information

Data Element Summary

<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
<u>Des.</u>	<u>Element</u>		
REF01	128	Reference Identification Qualifier	M ID 2/2
		Code qualifying the Reference Identification	
		BM Bill of Lading Number or	
		If UPS shipment, must provide Tracking Number	
		Note:	
		If multiple tracking numbers exist for a given shipment, provide one of the tracking numbers	
		CN Pro Number	
REF02	127	Reference Identification	M AN 1/30
		Bill of Lading Number or Tracking Number	
		Pro Number	

Segment: **DTM** Date/Time Reference
Level: Shipment
Usage: **Mandatory**
Purpose: To specify pertinent dates and times

Data Element Summary			
<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
DTM01	374	Date/Time Qualifier	M ID 3/3
		011 Shipped	
DTM02	373	Date	M DT 8/8
		Date expressed as CCYYMMDD	
DTM03	337	Shipment Time	O TM 4/8
		Note: Time expressed as 4, 6, or 8 digits (i.e. hhmm,etc)	

Segment: **FOB** F.O.B. Related Instructions
Level: Heading
Usage: Mandatory
Purpose: To specify transportation instructions relating to shipment

Data Element Summary			
<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
<u>Des.</u>	<u>Element</u>		
FOB01	146	Shipment Method of Payment	M ID 2/2
		Code identifying payment terms for transportation charges	
		PO	Prepaid
			Prepaid with exception
		CC	Collect
			Collect with exception
			Collect and allowed
			Consignee collect
		PA	Prepaid and add

Segment: **N1** Name
Level: Shipment
Usage: **Mandatory**
Purpose: To identify a party by type of organization, name, and code

Note: **The following N1 loops are required back on the 856 transaction**
BY – Buying Party – Grainger
SF – Ship From
ST – Ship To

Data Element Summary			
<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
<u>Des.</u>	<u>Element</u>		
N101	98	Entity Identifier Code	M ID 2/2
		Code identifying an organizational entity, a physical location, property or an individual	
		BY Buying Party - Grainger	
		SF Ship From	
		ST Ship To	
N102	93	Name	M AN 1/40
		Free-form name	
N103	66	Identification Code Qualifier- Required for BY & SF loop only	M ID 2/2
	92		
		Note: The N103 will only be populated for the BY & SF loop	
N104	67	Grainger Plant Code- Required for BY loop Grainger Internal Supplier Number – Required for the SF loop	M AN see below
		Notes:	
		➤ The N104 will only be populated for the SF & BY loop	
		➤ For the N104 BY loop: Grainger plant code – This value is populated and sent on the electronic outbound 850 purchase order in the N1 ST loop, 04 th element.	AN 3 / 4
		➤ For the N104 SF loop: Grainger Internal Supplier Number This value is populated and sent on the electronic outbound 850 purchase order in the REF segment with the IA qualifier Grainger Internal Supplier Number	AN 8 /10

Segment: **N2** Additional Name Information
Level: Shipment
Usage: **Optional**
Purpose: To specify additional names or those longer than 35 characters in length

Note: The N2 segment if sent is only required for the SF & ST loop

Data Element Summary			
Ref.	Data		Attributes
<u>Des.</u>	<u>Element</u>	<u>Name</u>	
N201	93	Name	O AN 1/40

Segment: **N3** Address Information
Level: Shipment
Usage: **Mandatory**
Purpose: To specify the location of the named party

Note: The N3 segment is only required for the SF & ST loop

Data Element Summary			
<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
<u>Des.</u>	<u>Element</u>		
N301	166	Address Information	M AN 1/40
		Note:	
		The N301 is only required for the SF & ST loop	
N302	166	Address Information	O AN 1/40
		Note:	
		The N301 is only required for the SF & ST loop	

Segment: **N4** Geographic Location
Level: Shipment
Usage: **Mandatory**
Purpose: To specify the geographic place of the named party

Note: **The N4 segment is only required for the SF & ST loop**

Data Element Summary			
Ref.	Data		
<u>Des.</u>	<u>Element</u>	<u>Name</u>	<u>Attributes</u>
N401	19	City Name	M AN 2/30
		Note:	
		The N401 is only required for the SF & ST loop	
N402	156	State or Province Code	M ID 2/2
		Note:	
		The N402 is only required for the SF & ST loop	
N403	116	Postal Code	M ID 3/15
		Note:	
		The N403 is only required for the SF & ST loop	
N404	26	Country Code	M ID 2/3
		Note:	
		The N404 is only required for the SF & ST loop	

Segment: **HL** Hierarchical Level
Level: Detail
Usage: **Mandatory**
Purpose: To identify dependencies among and the content of hierarchically related groups of data segments

Data Element Summary			
Ref.	Data		
<u>Des.</u>	<u>Element</u>	<u>Name</u>	<u>Attributes</u>
HL01	628	Hierarchical ID Number	M AN 1/12
HL03	735	Hierarchical Level Code	M ID 1/1
		I Item Level	

Segment: **LIN** Item Identification
Level: Detail
Usage: Mandatory
Purpose: To specify basic item identification data

Data Element Summary				
Ref.	Data	Name	Attributes	
<u>Des.</u>	<u>Element</u>			
LIN01	350	Grainger Purchase Order Line Number	M	AN 5/5
LIN02	235	Grainger Stock Number Qualifier	M	ID 2/2
		CB Grainger stock number		
LIN03	234	Grainger Stock Number	M	AN 5/10
LIN04	235	Vendor Item Number Qualifier	M	ID 2/2
		VN Vendor item number		
LIN05	234	Vendor Item Number	M	AN 1/35
LIN06	235	UPC/EAN Code – For Future Use	O	ID 2/2
		Note: This segment is a place holder for future use by Grainger and our suppliers		
		UD U.P.C./EAN Consumer Package Code (2-5-5)		
LIN07	234	UPC/EAN Consumer Package Code – For Future Use	O	AN 1/25
		Note: This segment is a place holder for future use by Grainger and our suppliers		

Segment: **SN1** Item Detail
Level: Detail
Usage: Mandatory
Purpose: To specify line-item detail relative to shipment

Data Element Summary			
<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
SN102	382	Number of Units Shipped Note: Only enter Material and quantities shipped on the ASN	M R 1/10
SN103	355	Unit of Measurement Code Note: Must reflect Grainger's unit of measure as stated on the Purchase Order	M ID 2/2

Segment: **PRF** Purchase Order Reference
Level: Detail
Usage: Mandatory
Purpose: To provide reference to a specific purchase order

Data Element Summary			
Ref.	Data		
<u>Des.</u>	<u>Element</u>	<u>Name</u>	<u>Attributes</u>
PRF01	324	Purchase Order Number	M AN 10/10
PRF04	373	Purchase Order Date	M DT 8/8

Segment: **PID** Product/Item Description
Level: Detail
Usage: Mandatory
Purpose: To describe a product or process in coded or free-form format

Data Element Summary			
<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
<u>Des.</u>	<u>Element</u>		
PID01	349	Item Description Type	M ID 1/1
		F Free-form	
PID05	352	Description	M AN 1/80
		A free-form item description	

Segment: **CTT** Transaction Totals
Level: Summary
Usage: Mandatory
Max Use: 1
Purpose: To transmit a hash total for a specific element in the transaction set

Data Element Summary

<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
<u>Des.</u>	<u>Element</u>		
CTT01	354	Number of Line Items	M N0 1/6
		Accumulation of the total number of HL segments sent including shipment and line level	

Segment: **SE** Transaction Set Trailer
Level: Summary
Usage: Mandatory
Max Use: 1
Purpose: To indicate the end of the transaction set and provide the count of the transmitted segments (including the beginning (ST) and ending (SE) segments)

Data Element Summary			
Ref.	Data		
<u>Des.</u>	<u>Element</u>	<u>Name</u>	<u>Attributes</u>
SE01	96	Number of Included Segments	M N0 1/10
		Total number of segments included in a transaction set including ST and SE segments	
SE02	329	Transaction Set Control Number	M AN 4/9
		Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set	

This EDI 856 ASN sample covers the requirements for Grainger and our Business Units. (Grainger Parts & Grainger FindMRO).

ISA*00* *00* *ZZ*GRAINGERSENDERID *ZZ*SUPPLIERRECEIVERID
*040720*1900*U*00401*000000001*0*P*<~
GS*SH*GRAINGERSENDERID*SUPPLIERRECEIVERID*20041001*1832*0001*X*004010~
ST*856*000000001~
BSN*00*UNIQUE ASN NUMBER*20041001*1001~
HL*001**S~
TD1*****G*245*LB~
TD5**ZZ*25811**UPS GROUND~
TD3*TL**8921154212~
REF*BM*1232365555~
REF*CN*13255422211~
DTM*011*20041020*1100~
FOB*PO~
N1*BY*GRAINGER*92*001~
N1*SF*SUPPLIER*92*2000+4 digits~
N2*ATTENTION~
N3*SUPPLIER ADDRESS 1*SUPPLIER ADDRESS2~
N4*CITY*STATE*ZIP CODE*COUNTRY CODE~
N1*ST*SHIP TO NAME~
N2*ATTENTION~
N3*SHIP TO ADDRESS 1*SHIP TO ADDRESS2~
N4*CITY*STATE*ZIP CODE*COUNTRY CODE~
HL*002**I~
LIN*00001*CB*GRAINGER STOCK NUMBER*VN*VENDOR ITEM NUMBER~
SN1**10*EA~
PRF*4600000000***20041001~
PID*F****ITEM DESCRIPTION~
HL*003**I~
LIN*00001*CB*GRAINGER STOCK NUMBER*VN*VENDOR ITEM NUMBER~
SN1**10*EA~
PRF*4600000000***20041001~
PID*F****ITEM DESCRIPTION~
HL*004**I~
LIN*00001*CB*GRAINGER STOCK NUMBER*VN*VENDOR ITEM NUMBER~
SN1**10*EA~
PRF*4600000000***20041001~
PID*F****ITEM DESCRIPTION~
CTT*4~
SE*36*000000001~
GE*1*0001~
IEA*1*000000001~